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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,891	05/19/2006	Masaki Hamada	290075US40PCT	3477

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EXAMINER
KHOSHNOODI, NADIA

ART UNIT	PAPER NUMBER
2437	

NOTIFICATION DATE	DELIVERY MODE
03/26/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>25 February 2010</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>15-28</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>15-28</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>19 May 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All b)☐ Some * c)☐ None of:

　　　　1. ☒ Certified copies of the priority documents have been received.

　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 2/25/2010 has been entered.

Response to Amendment

Claims 1-14 are cancelled. Applicant's arguments/amendments with respect to pending

claims 15-28 filed 2/25/2010 have been fully considered and therefore the claims are rejected

under new grounds.

Information Disclosure Statement

Although the information disclosure statement (IDS) submitted on 5/22/2009 was filed

after the mailing date of the non-final office action on 4/1/2009 was in compliance with the

provisions of 37 CFR 1.97, Examiner would like to note that Applicants also filed an NPL

document entitled "Decision of a Patent Grant" that was not cited in the IDS and thus not

considered. If Applicants would like for that NPL document to be considered, Applicants are

asked to include it in an IDS.

Claim Objections

Claim 15 is objected to because of the following informalities: in line 16, the claim as

amended states "….to update the protection request information to exclude *from* restriction

packets not included in the attack, based on a report transmitted from the restricting device…"

where it seems that the term "*from*" should be removed. Appropriate correction is required.

Also, in claims 15, 21, and 25, Applicants added the following limitations "an updated

protection request information excluding from restriction packets not included in the attack..." In

determining whether or not this language was supported by the Specification, Examiner would

like to point out paragraphs 13 and 15 of the Specification which uses the word "remove" in

reference to getting rid of the restrictions put on the packets. Examiner suggests clarifying the

language by replacing "excluding" with "removing" in order to remain consistent with the

terminology presented in the Specification.

Claim Rejections - 35 USC § 101

I.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

II.   Claims25-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter, as they do not fall under any of the statutory classes of

inventions. These claims are directed towards computer-readable medium which is not limited

to falling under the statutory classes of invention set forth. These claims in using the term

"computer readable medium" allows for the computer readable medium to be interpreted as

signals, thus non-statutory. Based on current USPTO Policy, when the computer readable

medium is not specifically defined as non-transitory in the Specification the broadest reasonable

interpretation is used according to MPEP 2111, thus the computer readable medium may embody

signals, i.e. transitory media. Examiner suggests that Applicants amend the claims to add a

limitation to direct the language of the 'computer readable medium' claims to only include the

non-transitory embodiment which would remove the possibility of claiming signals.

Claim Rejections - 35 USC § 103

III.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

IV.   Claims 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talpade et

al., US Pub. No. 2004/0148520, and further in view of Mollenkopf, US Patent No. 6,980,090 and

Sonnenberg, US Patent No. 7,076,650.

As per claims 15, 21, and 25:

Talpade et al. substantially teach a system/method/computer readable recording medium

for protecting a communication device against a denial-of-service attack, comprising: a

monitoring device provided on a local area network including the communication device, the

monitoring device being configured to monitor a packet transmitted to the communication device

via an internet-service-provider network (par. 17, lines 1-19 and par. 20); and a restricting device

provided on the internet-service-provider network, the restricting device being configured to

restrict a packet to the local area network (par. 17, lines 23-37), wherein the monitoring device

includes an attack detecting unit configured to detect an attack by the packet on the

communication device (par. 17, lines 1-12), and a protection-request-information transmitting

unit configured to transmit protection request information indicating a request for protection

against the attack (par. 17, lines 10-19 and par. 22); and the restricting device includes a packet

restricting unit configured to restrict a packet transmitted to the communication device via the

internet-service-provider network based on the protection request information (par. 17, lines 23-

37 and par. 24). Furthermore, Talpade et al. teach that all traffic determined to be non-DDOS

traffic is routed back onto the ISP network (par. 33).

       Not explicitly disclosed is the protection-request-information transmitting unit being

configured to update the protection request information to exclude from restricting packets if not

included in the attack, based on a report transmitted from the restricting device. However,

Mollenkopf teaches that until the source of a packet is trusted, the packet is restricted on the

network and once the packet becomes trusted (i.e. once it is not an attack), the restrictions are

removed by sending a message to the server (col. 25, lines 23-40). Therefore, it would have

been obvious to a person in the art at the time the invention was made to modify the method

disclosed in Talpade et al. to remove the restrictions from packets that were put in the category

of being non-DDOS traffic based on the update message. This modification would have been

obvious because a person having ordinary skill in the art, at the time the invention was made,

would have been motivated to do so since Mollenkopf suggests that once the source of a packet

is trusted, it allows for the packet to be processed without restrictions by allowing it to communicate through the communication line to all parts of the Internet in col. 25, lines 33-40.

Also not explicitly disclosed is wherein the protection request information includes a certificate authenticating the monitoring device. However, Sonnenberg teaches that a firewall and other nodes which assist with packet scanning perform mutual authentication using certificates in order to establish trust amongst these monitoring devices (col. 8, lines 55-63). Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Talpade et al. to include support for certificates which may be used in authenticating monitoring devices. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Sonnenberg suggests that it's important to establish a level of trust between the monitoring node and other nodes and that this trust may be established through an authentication procedure employing certificates in col. 8, lines 55-63.

As per claims 16, 22, and 26:

Talpade et al., Mollenkopf, and Sonnenberg substantially teach the system/method/computer readable recording medium according to claims 15, 21, and 25. Furthermore, Talpade et al. teach wherein the monitoring device further includes a signature generating unit configured to generate a signature indicating a feature of a packet that attacks the communication device, the protection-request-information transmitting unit transmits the protection request information including the signature to the restricting device, and the packet restricting unit restricts a packet corresponding to the signature (par. 26).

As per claims 17, 23, and 27:

Talpade et al., Mollenkopf, and Sonnenberg substantially teach the

system/method/computer readable recording medium according to claims 16, 22, and 26.

Furthermore, Talpade et al. teach wherein the restricting device further includes a signature

determining unit configured to determine whether the protection request information including

the signature is appropriate, and the packet restricting unit restricts a packet corresponding to a

signature that is determined to be appropriate, and does not restrict a packet corresponding to a

signature that is determined to be inappropriate (par. 20). Not explicitly disclosed is where the

signature is based on the certificate. However, Sonnenberg teaches the use of certificates in an

authentication procedure, where it is extremely well known for certificates to incorporate

features (such as a public key) to enable the use of determining if a signature is authentic (col.

10, lines 29-49). Therefore, it would have been obvious to a person in the art at the time the

invention was made to modify the method disclosed in Talpade et al. to determine if the

protection request which contains a signature is appropriate based on the certificate. This

modification would have been obvious because a person having ordinary skill in the art, at the

time the invention was made, would have been motivated to do so since Sonnenberg suggests

that it's important to establish a level of trust between the monitoring node and other nodes and

that this trust may be established through an authentication procedure employing certificates in

col. 8, lines 55-63.

As per claims 18, 24, and 28:

Talpade et al., Mollenkopf, and Sonnenberg substantially teach the

system/method/computer readable recording medium according to claims 16, 22, and 26.

Furthermore, Talpade et al. teach wherein the restricting device further includes a report

generating unit configured to generate a report including a feature and an amount of packets corresponding to the signature, and a report transmitting unit configured to transmit the report to the monitoring device (par. 20 and par. 22), the signature generating unit generates a new signature based on the report, the protection-request-information transmitting unit transmits the protection request information including the new signature to the restricting device (par. 26), and the packet restricting unit restricts a packet corresponding to the new signature (par. 26 and par. 34).

As per claim 19:

Talpade et al., Mollenkopf, and Sonnenberg substantially teach the system according to claim 18. Furthermore, Talpade et al. teach wherein the restricting device further includes a forwarding unit configured to forward the protection request information to other restricting devices provided on the internet-service-provider network (par. 27), the forwarding unit being configured to determine whether to forward the protection request information based on the report generated by the report generating unit.

As per claim 20:

Talpade et al., Mollenkopf, and Sonnenberg substantially teach the system according to claim 17. Furthermore, Talpade et al. teach wherein the restricting device further includes a determination-result transmitting unit configured to transmit a determination result of the signature determining unit to the monitoring device, the signature generating unit of the monitoring device generating a new signature indicating the feature of the packet that attacks the communication device when the determination result indicates that the signature is inappropriate (par. 34).

References Cited, Not Used

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US Pub.   No. 2004/0250124
2. US Patent No. 6301668
3. US Pub.   No. 2002/0087885
4. US Pub.   No. 2003/0135762
5. US Pub.   No. 2003/0145226
6. US Patent No. 6,609,205
7. US Pub.   No. 2004/0054925
8. US Pub.   No. 2004/0128550
9. US Pub.   No. 2004/0172557
10. US Pub.   No. 2004/0199793

The above references have been cited because they are relevant due to the manner in which the invention has been claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825. The examiner can normally be reached on M-F: 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nadia Khoshnoodi/
Examiner, Art Unit 2437
3/18/2010

NK

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